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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,569	03/25/2004	Tomohiro Shirakawa	010482.53914US	4840

23911 7590 07/14/2006

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EXAMINER
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MAGEE, CHRISTOPHER R

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/808,569

Applicant(s)

SHIRAKAWA ET AL.

Examiner

Christopher R. Magee

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/24/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 03/25/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner has considered the information disclosure statement.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (hereinafter Tanaka) (US 6,335,914 B2).

- Regarding claim 1, Tanaka shows a tray drive mechanism for an optical disc apparatus, Comprising [Figure 6]:

a base chassis 1;

a tray 25 for placing an optical disc therein and loading the optical disc into an optical disc apparatus, the tray being provided and slidable in the optical disc apparatus to open and close, and having a rack to be provided with a driving force for the opening and closing;

an optical pickup 7 to irradiate a laser beam onto the optical disc for recording and/or reproducing signals or data [col. 4, lines 13-16];

a feed motor 11 for feeding the optical pickup in a radial direction of the optical pickup;

a gear train [21 to 24] to be driven by the feed motor to rotate and comprising plural gears which include a feed gear 13 to mesh with a rack provided on the optical pickup for feeding the optical pickup and also include a tray drive gear to mesh with the rack of the tray for opening and closing the tray [col. 4, lines 33-46];

a drive mechanism chassis 3 having mounted thereon the optical pickup, the feed motor, the feed gear and a switching mechanism for switching operation from a feeding operation of the optical pickup to a clamping and unclamping operation of the optical disc;

a rack member 58 comprising a boss 61 and being provided to mesh with the feed gear and driven in a direction to inner circumference of the optical disc;

a plate member 6 comprising a boss 63 and a cam groove 64 comprising a slope portion, the boss of the rack member being provided to transfer a driving force to the plate member, wherein the slope portion of the cam groove of the plate member meshes with the boss of the rack member when the rack member is driven in the direction to the inner circumference of the optical disc; and

a cam slider 47 slidably supported by the base chassis of the optical disc apparatus, the boss of the plate member being provided to transfer a driving force to the cam slider, wherein the

Art Unit: 2627

cam slider comprises a cam groove to guide the boss of the plate member for raising and lowering the drive mechanism chassis as to clamp and unclamp the optical disc, and comprises a boss to guide the tray, and also comprises a rack to mesh with the tray drive gear [Figure 10],

wherein the tray 25 comprises a cam groove 27 comprising a slope surface to be engaged with the boss of the cam slider for moving the tray in a direction to open and close the tray when the cam slider is slided [col. 6, lines 8-15],

wherein when the rack member is driven in a direction to the inner circumference of the optical disc, the cam slider is slided in linkage with the plate member to cause the rack of the cam slider to mesh with the tray drive gear, and

wherein the mesh between the rack of the cam slider and the tray drive gear causes driving of the cam slider to be switched from driving by the plate member to driving by the tray drive gear so that the boss of the cam slider pushes the slope surface of the cam groove for sliding the tray to cause the rack of the tray to mesh with the tray drive gear, whereby the tray is driven by the feed motor to open and close [col. 7, lines 26-37].

- Regarding claim 2, Tanaka shows the gear train [21-24] includes gears, which are matched in phase with each other in assembly [Figure 6].

- Regarding claim 6, Tanaka teaches an innermost position detection switch 35 for detecting an innermost circumference position of the optical pickup, wherein completion of tray closing operation is detected by switching off of the innermost position detection switch [col. 5, lines 12-16].

***Allowable Subject Matter***

4. Claims 3-5 and 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

5. The prior art made of record and not relied upon that is considered pertinent to applicant's disclosure has been annotated on PTO-492.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Magee whose telephone number is (571) 272-7592. The examiner can normally be reached on M-F, 8: 00 am-4: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christopher R. Magee  
Patent Examiner  
Art Unit 2627

July 6, 2006  
crm



ANDREA WELLINGTON  
SUPERVISORY PATENT EXAMINER